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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,201	11/30/2000	Earl Goodrich II	Sprint 1504 (4000-3000)	3225
28003	7590	09/30/2004	EXAMINER	
SPRINT 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100			TIEU, BINH KIEN	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/727,201

Applicant(s)

GOODRICH ET AL.

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/29/2004 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulrich et al. (U.S. Pat. #: 3,492,436 as cited in the previous Office Action) in view of Hill et al. (U.S. Pat. #: 3,978,292).

Regarding claims 1 and 8, Ulrich et al. ("Ulrich") teaches a method of ringing arrangement with variable intervals of ringing cadences. Ulrich teaches line link network (LLN) and trunk line network (TLN), as shown in figure 1 for supporting a plurality of telephone circuits (LA-LN). Ulrich further teaches the method that provides ring current during the same ring cadence to all of the circuits then receiving calls (i.e., ring current from a ring generator coupled to ringing control circuit RCC is applied over the shared conductors RG, col.5, line 69 – col.6, line12). Ulrich further teaches the method that comprises offsetting the ringing interval of each of the plurality of telephone circuits by a preselected amount (i.e., offsetting for two-second interval and four-second silent; 1.5 second interval and 4.5 second silent, etc.) such that all the telephone circuits do not ring simultaneously during the same ring cadence (col.6, lines 13-75).

It should be noticed that Ulrich the method of arrangement with variable intervals of ringing cadence. Ulrich fails to clearly teach or suggest the method to be used for reducing power in an integrated services hub connected with a plurality of SLICs. Ulrich further fails to teach said integrated service hub is located on customer premises. However, Hill et al. ("Hill") teaches a line circuit as shown in figure 3 operating as an integrated service hub servicing a plurality of subscriber loop, e.g., lines group. As known in the art that the line circuit is located on subscriber premises to receiving incoming call signals, such as ringing

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signals sent from a remote central office for a purpose of eliminating individual ringing control circuits associated with each of telephone set line circuits.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of arrangement with variable intervals of ringing cadence taught by Ulrich into an integrated service hub, located on the subscriber premises, connected with a plurality of SLICs for reducing power in order to reduce ringing power sources and heat or temperature for telecommunications equipment while it has been operating.

Regarding claims 2-4 and 6, Ulrich further teaches limitations of the claims in col.6, lines 13-53 and figure 4

Regarding claim 5, Ulrich further teaches limitations of the claims in col.8, lines 65-68.

Regarding claims 7 and 10, Ulrich further teaches limitations of the claims in col.5, lines 69-75.

Regarding claim 9, Ulrich further teaches limitations of the claims in the ringing generator (RG) providing positive terminal and negative terminal to the plurality of telephone circuits LA-LN and other internal power amplifiers as shown in figures 2 and 3.

5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulrich et al. (U.S. Pat. #: 3,492,436) in view of Koda (U.S. Pat. #: 4,579,386).

Regarding claims 1 and 8, Ulrich teaches a method of ringing arrangement with variable intervals of ringing cadences. Ulrich teaches line link network (LLN) and trunk line network (TLN), as shown in figure 1 for supporting a plurality of telephone circuits (LA-LN).

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Ulrich further teaches the method that provides ring current during the same ring cadence to all of the circuits then receiving calls (i.e., ring current from a ring generator coupled to ringing control circuit RCC is applied over the shared conductors RG, col.5, line 69 – col.6, line12).

Ulrich further teaches the method that comprises offsetting the ringing interval of each of the plurality of telephone circuits by a preselected amount (i.e., offsetting for two-second interval and four-second silent; 1.5 second interval and 4.5 second silent, etc.) such that all the telephone circuits do not ring simultaneously during the same ring cadence (col.6, lines 13-75).

It should be noticed that Ulrich the method of arrangement with variable intervals of ringing cadence. Ulrich fails to clearly teach or suggest the method to be used for reducing power in an integrated services hub connected with a plurality of SLICs. Ulrich further fails to teach said integrated service hub is located on customer promises. However, Koda teaches a subscriber transmission equipment as shown in figures 1 and 2 operating as an integrated service hub servicing a plurality of subscriber loops, e.g., line cards and loops 22-22n. As known in the art that the subscriber transmission equipment is located far away from a telephone exchange and located on subscriber premises in order to receive incoming call signals, such as ringing signals sent from the remote exchange for a purpose of adding new subscriber service to subscriber loop.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of arrangement with variable intervals of ringing cadence taught by Ulrich into an integrated service hub, located on the subscriber premises, connected with a plurality of SLICs such as line cards for reducing power in order to

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reduce ringing power sources and heat or temperature for telecommunications equipment while it has been operating.

Regarding claims 2-4 and 6, Ulrich further teaches limitations of the claims in col.6, lines 13-53 and figure 4

Regarding claim 5, Ulrich further teaches limitations of the claims in col.8, lines 65-68.

Regarding claims 7 and 10, Ulrich further teaches limitations of the claims in col.5, lines 69-75.

Regarding claim 9, Ulrich further teaches limitations of the claims in the ringing generator (RG) providing positive terminal and negative terminal to the plurality of telephone circuits LA-LN and other internal power amplifiers as shown in figures 2 and 3.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Feiner (U.S. Pat. #: 3,978,293) is a related patent to the Hill patent applied above. It also teaches the line circuit operating as the integrated service hub providing offset ringing signals in the timing intervals. *Said Line Circuit is located on subscriber premises.*

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (703) 305-3963 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (703) 305-4708 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).

BINH TIEU  
PRIMARY EXAMINER



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Date: September 29, 2004